

PACKLESS VALVE APPARATUS  
ABSTRACT OF THE DISCLOSURE

The valve includes a dome shaped diaphragm clamped between a base and valve body with the base having an inlet and an outlet opening to the diaphragm and a plastic button having a concave central portion surrounded by an annular convex portion for abutting against the diaphragm to move it to a closed position against a valve seat to block fluid flow between the inlet and an outlet. In a valve open position, the button central portion abuts against the diaphragm central portion while, as the button moves to a valve closed position, the closing force is applied to the diaphragm further radial outwardly. An actuator is operable for moving a plunger against a larger diameter insert mounted in a button recess which is axially opposite the diaphragm.